

# Climate and Ecological Emergency Strategy

Progress Report - Autumn 2021

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## Introduction

In 2019, the newly formed Dorset Council declared a Climate and Ecological Emergency, acknowledging the Council needs to act on the causes and impacts of climate change and protect and enhance Dorset's environment and wildlife. We consulted with the public on a draft Climate and Ecological Emergency Strategy and Dorset Council adopted the Strategy and Action Plan in July 2021.

This first progress report focuses on action we have taken towards achieving our carbon emission targets over the past year as well as highlighting some of the key pieces of work underway to deliver the strategy. Case studies and video clips will also be available on-line over the coming months to provide ongoing updates.

**This report does not cover everything!** It aims to be concise and provide a snapshot. Many other areas of work are underway across the Council and wider Dorset which contribute to delivering the strategies objectives and action plan. More of these will feature in future editions. The next report will be published in Spring 2022, highlighting further progress, and focusing on the year to come.

### An extra ordinary year

One of the biggest challenges over the last 18 months has been the continuing global Coronavirus pandemic. This has resulted in slower than anticipated action in some areas of the strategy but changes how we deliver services and how we all work which has had a significant impact on our carbon foot print.

We have travelled much less, did not use our buildings as much, undertook less capital works, learnt how to use technology in new ways and we have all had a chance to re-connect a little more with nature and our local surroundings and changed many of our daily habits. Conversely, we have had to provide extra services to help keep people safe and respond to the pandemic, such as additional school transport.

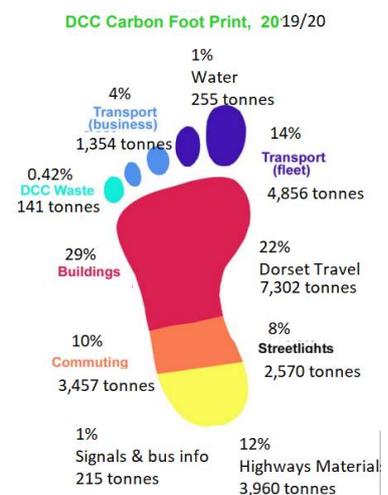
## Dorset Council Emissions

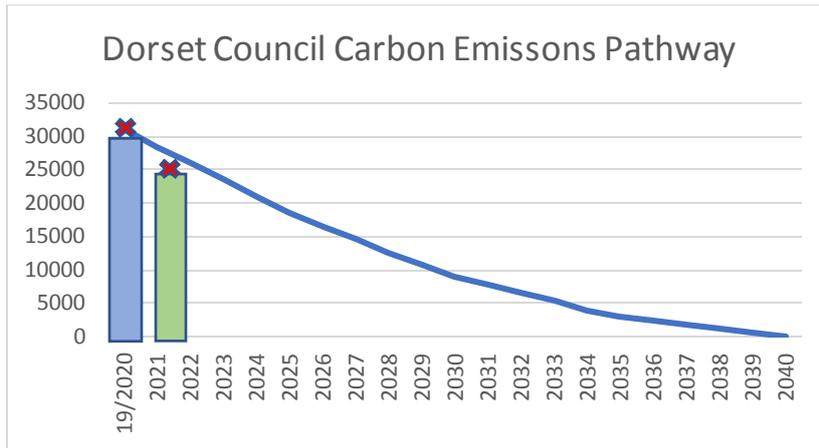
Dorset Council only has direct control over the carbon emissions produced from its own operations and this will be a key focus of our initial activities.

**Our baseline for 2019/20 was at about 31,000 Tonnes CO<sub>2</sub><sup>e</sup>.**

**How did we do last year ?**

**In 2020/21 our carbon emissions reduced by approximately 17% to 25,867 tonnes CO<sub>2</sub><sup>e</sup>**





**Blue line** – planned trajectory to carbon neutral council by 2040

**X** - actual emissions

### Where have the savings come from?

Carbon Foot print area	Difference	Performance
Buildings - Energy	-21%	😊
Buildings - Water	-19%	😊
Streetlights & Intelligent transport systems	-22%	😊
Highways materials	-33%	😊
Fleet fuel	+17%	😞
Dorset Travel Fuel	+14%	😞
Business mileage	-60%	😊
Commuting	-50%	😊
Waste	-35%	😊

What this has shown is what is possible in a short time, particularly through using buildings differently, working more from home and using technology to travel less. We understand that means some emissions may now be generated in homes where they weren't before, but we are yet to decide on an approach that can account for this.

One of the biggest challenges for us and many other organisations will be to lock in some of these positive working practices while returning to normal service delivery. There is an obvious danger of bounce back which must be avoided where we can.



## Dorset Area Emissions

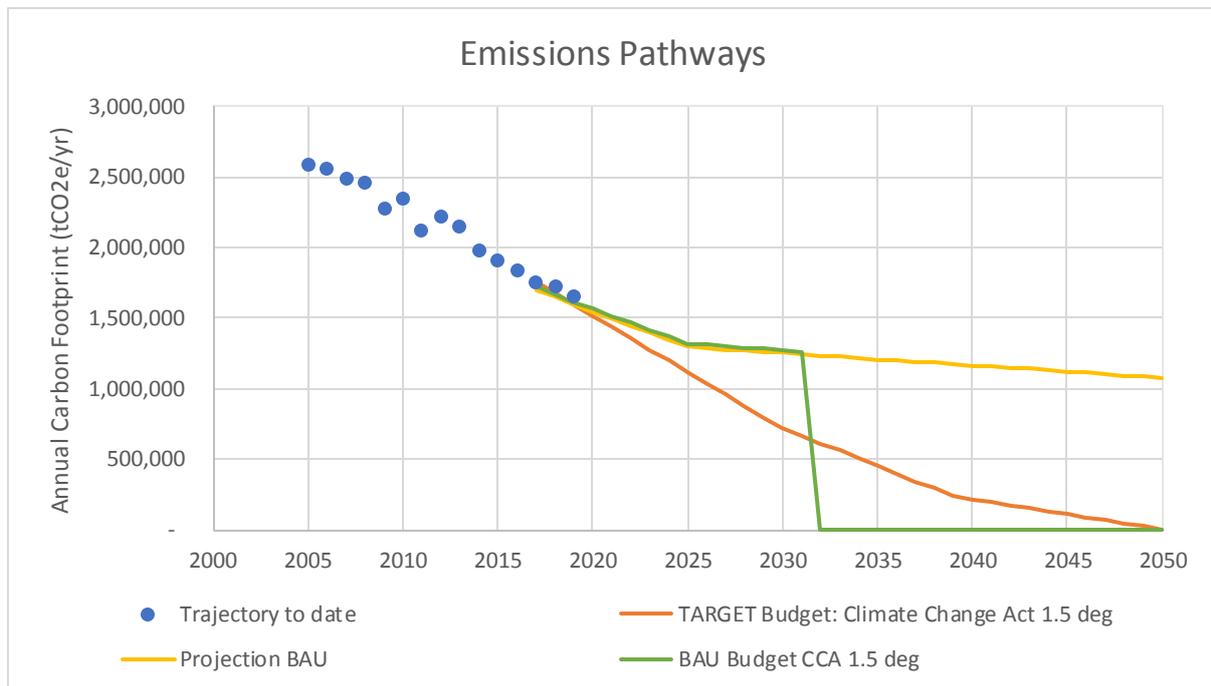
Dorset Council only accounts for approximately 2% of the County's carbon footprint and has limited impact on the county-wide emissions but can influence and support where we can.

### Baseline emissions for Dorset where 1.759 million tonnes of CO<sub>2</sub><sup>e</sup> in 2017<sup>1</sup>

#### How has Dorset done so far?

The latest government data for Dorset<sup>2</sup> shows that Dorset emissions reduced to 1.662 million tonnes of CO<sub>2</sub><sup>e</sup> by 2019, equivalent to a 6 % reduction from 2017<sup>3</sup>.

However, this reduction is below the target of 9% and means at this rate we would use our total carbon budget for Dorset by 2034.



<sup>1</sup> UK local authority and regional carbon dioxide emissions national statistics: 2005-2018

<sup>2</sup> UK local authority and regional carbon dioxide emissions national statistics: 2005-2019

<sup>3</sup> Baseline Year



## Buildings & Assets

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Reducing energy use and increasing use of renewable energy in buildings & other assets is the single largest part of the both the Council and county-wide carbon footprint and one of the most challenging areas requiring significant investment by organisations and individuals across Dorset.

**Energy use** in Dorset Council buildings has shown a **21% reduction** in energy use between 2019/20 and 2020/21 resulting in a saving of **2,100 tCO<sub>2</sub><sup>e</sup>**.

Carbon emissions from **domestic buildings** in Dorset **reduced by 3%** between 2017 & 2019. We are commissioning a building condition survey in 2021/22 which will give a better picture of housing across Dorset.

### Decarbonising our Estate

In early 2021 we **secured £19 million** from Central Government 'Low Carbon Skills Fund (LCSF)' and 'Public Sector Decarbonisation Scheme (PSDS)' to support a major energy reduction and renewable energy programme across a number of buildings to include offices, care homes, schools and leisure centres. Projects include – installing heat pump systems, replacing any remaining oil boilers with heat pumps, improving building fabric, installing LEDs, and installing Solar Panels. In addition, we will be upgrading the energy management systems on each of these sites site and many more to ensure energy is managed effectively.

### Dorset Homes

Healthy Homes Dorset ([www.healthyhomesdorset.org.uk](http://www.healthyhomesdorset.org.uk)) continues to help residents keep warm by providing energy advice and financial assistance to improve the energy efficiency of their homes. Residents have **saved** about **97.75 tCO<sub>2</sub><sup>e</sup>** and **£42,612** through our grant funded energy efficiency activities and we are seeking further government funds to strengthen this work as well as enhancing our enforcement activities to ensure landlords improve the energy performance of rented property.

## Business and Economy

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**Since 2017 carbon emissions from industrial and commercial activity in Dorset have reduced by 6% and 14% respectively.**

### Low Carbon Dorset programme

Launched in 2018, this multi-million-pound EU funded programme provides free technical support and grants to organisations across the whole of Dorset, to identify and develop energy efficiency and renewable energy projects.

In 2020 we secured an additional £4.8 million pounds to extend the programme to 2023. To date the programme has helped **over 500** businesses and awarded **142** grants to support **£5.4m** worth of low-carbon projects saving **5,342** tonnes of CO<sub>2</sub><sup>e</sup>.

Our ever growing range of case studies can be found at [www.lowcarbondonset.org.uk/case-studies/](http://www.lowcarbondonset.org.uk/case-studies/).

### Green Tourism

Work has started with Visit Dorset to develop online resources and information to help tourism businesses to reduce their carbon footprint, this includes a new [webpage](#) and an [Eco-friendly Dorset](#) section. Visit Dorset also collaborated with the Energy Saving Trust and Bournemouth, Christchurch



and Poole (BCP) Council to run 2 webinars for tourism businesses on [switching from petrol/diesel vehicles to electric](#) and [installing electric car charging points](#).

### Sustainable Food and Drink

We continue to work with partners to support Dorset's food economy and encourage local and sustainable produce. In 2021 Dorset Food and Drink (now an independent Community Interest Company) delivered a series of mini pop-up markets in Dorchester, Weymouth and Bovington to support local producers and help recovery from impacts of COVID on this sector. They also worked with Arts Reach on the Grow Local, Grow Vocal project, commissioning the poem Dairy Cows & Dorset Knobs ([Link](#)) by a local artist to promote local and sustainable food.

The Dorset Coast Forum have been working closely with producers, policy makers and regulators to support the development of a sustainable Aquaculture sector in Dorset and have recently secured funds to carry out an economic study on the sector in England and develop a robust business model for an English Aquaculture Innovation Hub in Dorset. [www.dorsetaquaculture.co.uk](http://www.dorsetaquaculture.co.uk) and ([Link](#)).

### Renewable Energy

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There is now nearly **420 Mega Watts<sup>4</sup>** (MW) of installed renewable energy capacity in the Dorset and BCP area. The majority of this is solar but other technologies include small wind, small hydro, anaerobic digestion and land fill gas. In 2019 Dorset and BCP local renewable energy sites generated 484 Giga Watt hours (GWh) of renewable electricity equivalent to just under 4% of Dorset & BCP total energy demand. There is another 246MW (mostly solar) currently in the planning system that may be installed in the coming years.

The Low Carbon Dorset Programme has supported the installation of **4MW** of renewable energy capacity on organisations across Dorset. To include **34** Solar PV installations, **3** Battery Storage Projects, **14** Heat Pumps, and **2** Biomass Boilers. A number of larger renewable energy installations are in the pipeline for installation before the end of 2022.

An initial wind mapping exercise was undertaken for Dorset to inform the draft local plan.

### Natural Assets

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#### Battery Powered Front Line tools

Our Grounds teams, Ranger Teams and Arboriculture Teams are now all using battery powered front line tools, powered by our own solar panels. **Each year** this should **save** approximately 8,000 litres of 2 stroke fuel, **£10,000** in cost and **19 tCO<sub>2</sub><sup>e</sup>** as well as having a range of noise reduction and health and safety benefits.

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<sup>4</sup> Dorset & BCP Draft 2021 Net Zero energy dashboard by Regen, 2021



## Verges for Wildlife

As part of Dorset Council's **pollinator action plan**, we are using methods to protect, conserve and enhance highway verges and other green spaces. This has included **purchasing 2 more cut and collect machines** which will benefit an additional **350,000 m<sup>2</sup>** of highway verge and amenity spaces. The work will improve biodiversity, reduce costs and save carbon from reduced cutting by diesel powered machines.



Dorset Council's #LoveYourVerge campaign ([Love Your Verge - YouTube](#)) is a countywide collaboration between the council's Greenspace Service and Litter Free Dorset. To promote verges that enhance ecology.

## Reducing chemical use

Following a review of Glyphosate usage. Glyphosate will now only be used as management tool for highway verges as per the council's statutory duty to maintain pavements and other hard surfaces. A 'hedge to hedge' review panel is being established to look at the strategic management of highway assets which will include methods to limit or eliminate chemical use.

## Tree Policy

Dorset Council has changed its policy to ensure that for every tree felled instead of just one, two will be planted.

## BBQ campaign

In order to protect wildlife and ecology in Dorset, we have banned the use BBQs and fires at all of our country parks, and land that is deemed to be a high fire risk. Litter Free Dorset is also working with shops and supermarkets to encourage them to remove disposable BBQ's from high fire risk areas.



## Protecting Landscapes

The Dorset AONB team have secured over **£1.3million** over 3 years for a 'Farming and Protected Landscapes' project. Which will provide funding to support projects to manage land for nature, climate, people and place ([Link](#)).

# Transport & Travel

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## A massive reduction in travel

The pandemic has fundamentally changed the way we travel. **Business travel has reduced by 60%** to 1,614,487 miles and we estimate staff **commuted less than half as much** in 2020/21, down to below 4 million miles a year.

Together this has **saved** an estimated **2,644 tCO<sub>2</sub><sup>e</sup>**.

Our challenge will be to ensure these ways of working continue as much as possible as we recover from the pandemic. Work is already underway to develop a Dorset Council's travel plan, which will aim to lock in more sustainable ways of travelling.



## Measuring the benefits

A '**Marginal Gains App**' was designed by Hanson<sup>5</sup> and Dorset Highways to capture specific details about the cost, carbon and time savings resulting from working from home due to the Covid pandemic. Using the App, the highways team recorded **savings**<sup>6</sup> of over **78,000 business miles** and **8.5 tonnes CO<sub>2</sub>** (equivalent to 239 days energy usage for an average family home or flying on a jumbo jet for 16 minutes) as well as saving over **1,960 return journeys** and **1,441 commutes** resulting in time cost savings of over **£23,000** and an additional **10 tonnes of CO<sub>2</sub>** emissions saved.

## Changing Travel Needs

In contrast, estimated **fleet fuel use increased by 22%** to 2,237,640 litres in 2020/21. This is thought to be in part due to errors in the baseline data and potentially more travel due to emergency support requirements during the pandemic. A transition to an EV fleet over the coming years will aim to reduce the climate impact from our fleet.

Carbon emissions also **increased 14% from Dorset Travel** in the last year. Despite schools being closed during lockdown there was still school transport operating as well as public bus services operating at reduced capacity. When the new academic year restarted there was a need to introduce duplicate buses to support individual school bubbles. This greatly increased the numbers of vehicles in circulation.

## Electric Charging Infrastructure

The limited charging infrastructure in Dorset has historically be a one of the constraints for the uptake of electric vehicles (EVs). In the last year we have invested **£400k** in EV charging. In collaboration with partners, Dorset Council have successfully **installed 26 fast charging (22kW)** sockets in **twelve locations**. Five existing rapid chargers (50kW) have also been replaced with new rapid charge points.



Dorset Council public charge points have saved **4,770 kg CO<sub>2</sub>e** since the first ones went live in February 2021.

## Streetlights and Intelligent Transport Systems

In March 2020 our streetlight provider completed a **£1m project** to replace over 3,500 of biggest lights with LED, this means the **electricity** used by our **streetlights** has **reduced by 15%**, resulting in a carbon savings of **616 tCO<sub>2</sub>e**. We have recently secured £390k to upgrade another 1,500 streetlights to LED next year. Upgrading our **intelligent transport systems** has resulted in a further **reduction of 4%**, saving **64 tCO<sub>2</sub>e**.

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<sup>5</sup> Our highways materials manufacturer

<sup>6</sup> data represents the savings made between November and June within the Highways team.



## Greener Highways

In 2020/21 highways **materials used reduced 30%** , **saving 1,305 tCO<sub>2</sub><sup>e</sup>**. The amount of asphalt used is dependent upon the budget and the forward programme of works, but is also likely reduced due to the pandemic and measures to re-use materials.

We use between 10% and 30% RAP (**Recycled Asphalt Planings**) and 6,126 tonnes (up from 2,668 tonnes the previous year) of our own recycled surfacing. This reduces our carbon footprint as lorries do not have to travel to source primary materials.

We introduced **Low Energy Asphalt** to all resurfacing schemes, and as a surface course on new construction projects such as cycleways from April 2020. Low energy (warm) asphalt is produced at 30 to 40 degrees lower temperature compared to conventional (hot) material, and **saves 15%** in **carbon emissions** ([Link](#))



## Waste

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Carbon emissions from **Dorset Council office waste** has **reduced from 141 tCO<sub>2</sub><sup>e</sup>** in 2019/20 to **92 tCO<sub>2</sub><sup>e</sup>** in 2020/21, largely due to less staff being in the office over the past year.

Dorset Council collects in the region on 180,000 tonnes waste annually. **60% of this waste is reused recycled or composted**. This places Dorset Council as one of the best local authorities nationally.

Reusing, recycling and composting waste has a much greater carbon benefit compared to incineration or landfill. This success has been recognised by the Eunomia Recycling Carbon Index ranking Dorset within the top 10% of all local authorities for the past seven years.

### Managing organic waste

We are promoting the '*food waste feeds climate change*' campaign and undertaking trials for the provision of free and subsidised food caddy liners to encourage residents to reduce food waste in the rubbish bin.

All of Dorset's household organic waste is now treated within the county using anaerobic digestion, a wood biomass plant, and windrow composting.

### Real nappies

Parents can apply online for a £30 voucher towards the cost of their reusable nappies and a discounted nappy starter pack which is offered by local nappy retailers.

### Engagement on waste

We have escalated our engagement on waste using social media and providing online school assemblies and classroom sessions during the Covid pandemic, virtual talks/presentations to numerous community groups have also been made to encourage residents to reduce, reuse and recycle.



### Improving facilities

We have improved 100 communal sites (sites with shared bin facility locations) to increase the quality of waste recycled and avoid contamination and disposal.

### Re-use

A new project officer is in place to explore the development of repair cafes and library of things.

## Water

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Water use has **reduced by 19%** across the Dorset Council Estate from 242,316 m<sup>3</sup> to 196,375m<sup>3</sup> in 2020/21. Most of this reduction is due to people working from home over the pandemic period.

### Water protection

Dorset AONB, Farming & Wildlife Advisory Group (FWAGSW) and Dorset Wildlife Trust (DWT) have worked in partnership over the past three years to support a community-led approach on the River Asker, which is currently a failing river under the Water Framework Directive. This involves working with partners and communities to clear invasive weeds, install natural flood management and 1.4km of habitat improvements.

### Flood management

The number of recorded flood incidents in Dorset **rose by over 240%** from 30 records in 2019 to 104 in 2020. This year we have carried out two significant flood investigations for Dorchester and Broadmayne, developed flood risk policy & Sustainable Drainage System guidance for the draft Dorset Council Local Plan and introduced a number of Natural Flood Management interventions ('slowing the flow') in the Upper Piddle catchment.

## Making it Happen

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A key part of the Climate and Ecological Strategy and Action Plan is to ensure the impact on climate and ecology are embedded in everything we do and the way we deliver services.

### Monitoring and Reporting

We have improved our baseline emissions and integrated monitoring and reporting on climate change indicators within our corporate performance process. This report is the first bi-annual public progress report.

### Embedding the strategy

As key strategies and plans are being developed, we are working to ensure climate and ecological objectives are being fully considered, this has included the Councils Corporate Plan, draft Local Plan and asset management plan. A draft climate & ecology impact tool has been developed and is being trialled to ensure key decisions take account of climate and ecological objectives.

### Securing Funding

Over **£63 million** in external fund has been secured to start decarbonisation of our estate, support organisations in Dorset to develop low carbon projects through Low Carbon Dorset programme, work with BCP Council to develop sustainable transport infrastructure in Eastern Dorset, expand EV charging infrastructure and improve energy efficiency of homes and streetlights in Dorset.



## Communications and Engagement

A range of internal briefings, seminars and webinars have been undertaken to engage staff and ensure we are all aware of the need for action and how services across the Council can contribute.

As part of developing the strategy, we engaged with town and parish councils and young people and held a public call for ideas which received **738 ideas** for action. Consultation on the draft Climate Change Strategy and Action Plan received over **1,500 respondents** and over **12,000 text comments**, leading to Adoption in July 2021.



